

**ABSTRACT**

A method of producing a membrane electrode assembly for use in direct methanol fuel cells by serigraphically printing cathode catalysts or anode catalysts with a carbon  
5 backing layer onto graphite or carbon paper, boiling impurities from these layers, and bonding the boiled, printed cathode and anode catalyst layers onto opposite sides of a polymer electrolyte membrane via semi-isostatic  
10 compression in a constraint which restricts volume and lateral deformation is provided. Also provided are membrane electrode assemblies produced in accordance with this method.

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